

Ovipositional Behavior of *Chloealtis aspasma* (Orthoptera: Acrididae).

—At the time of its description the ovipositional behavior of *Chloealtis aspasma* Rhen and Hebard was unknown. The structure of the ovipositor suggests that this species might oviposit in wood, a phenomenon common to some other species in the genus (Jago, 1969, Proc. Acad. Nat. Sci. Philadelphia, 121: 229–335).

The ovipositional behavior of *C. aspasma* was studied 16 miles northeast of Ashland, Jackson County, Oregon. The study site is an old logged-over clear-cut area surrounded by mixed conifer forest. In recent years selective cutting has continued immediately adjacent to the clearing. Consequently the area is littered with slash, logs and stumps, all in varying stages of decay. Vegetation in the clearing consists of grasses, forbs and one perennial shrub, elderberry, *Sambucus caerulea* Raf.

On July 19, 1971 a number of elderberry stakes were driven into the ground to serve as nesting sites for solitary bees. When the stakes were examined in April, 1972 the presence of grasshopper eggs in the center pith was noted.

On July 6, 1972 a large number of elderberry stakes were placed in the study area and monitored periodically in an effort to identify and study the grasshopper. The first female *C. aspasma* visited the stakes and oviposited on July 18. Oviposition continued throughout the study period but declined in frequency before the study was terminated on August 11. Each female spent 22–46 minutes inserting her ovipositor and depositing a single pod of eight eggs. No female was observed to deposit successive egg-pods.

Periodic surveys were conducted to determine the distribution of *C. aspasma* within the area and to identify oviposition sites. Females and nymphs were found throughout the clear-cut area. They were less frequently encountered in the brushy interface between the clearing and forest. Males were apparently restricted to the brushy interface area. They were not found in either the cleared or forested area.

Potential ovipositional sites in the area were examined. These included all available types of dead wood, the stems of dead herbaceous plants and elderberry stems. Females were attracted only to the exposed pith of the numerous dead and broken stems around the base of each elderberry plant. Examination of old stems revealed ovipositional scars from previous years. No such marks were evident on the other materials examined. Undisturbed habitats in the immediate vicinity were also surveyed. Elderberry was the only ovipositional substrate utilized in undisturbed areas.

Earlier literature (Gurney, Strohecker and Helfer, 1964, Trans. Amer. Entomol. Soc., 84: 119–137) suggests that large series of *C. aspasma* are not common. However, the population in the study area was large. The numerous females and nymphs were conspicuous and easily collected. It is plausible that clearcutting and the subsequent large-scale invasion of elderberry has enhanced the population's development. In adjacent, undisturbed habitats elderberry plants are widely scattered and restricted to open, south-facing slopes. Grasshopper populations in undisturbed areas are much smaller than in the study area.

Stakes used in the study were allowed to overwinter in the field. They were returned to the laboratory in late April, 1973. Examination of and rearings from this material revealed that two insects commonly prey upon the eggs of *C. aspasma*. The larva of a chloropid fly, *Goniopsita oophaga* Sabrosky, destroyed an average of 67.1 percent of the eggs examined while the larva of a clerid beetle, *Trichodes oregonensis* Barr, destroyed 5.3 percent.

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